

National Park Service  
U.S. Department of the Interior

Little Bighorn Battlefield National Monument  
Montana



# **Finding of No Significant Impact / Decision Notice**

## **Rehabilitate Tour Road**

September 2005



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# **FINDING OF NO SIGNIFICANT IMPACT/DECISION NOTICE**

## **REHABILITATE TOUR ROAD**

### **Little Bighorn Battlefield National Monument**

#### **NEED FOR AND PURPOSE OF ACTION**

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The National Park Service (NPS) in cooperation with Federal Highway Administration (FHWA) and the Western Federal Lands Highway Division (WFLHD) proposes to rehabilitate approximately 5.1 miles of the Tour Road, connecting the Custer Battlefield with the Reno-Benteen Battlefield in Little Bighorn Battlefield National Monument, Big Horn County, Montana. The purpose of the action is to improve poor pavement and shoulder conditions on the Tour Road; enhance resource protection; provide a uniform and greater width to the Tour Road; and improve traffic flow and capacity at the visitor center and Reno-Benteen parking areas.

This action is needed to repair structural deficiencies to the Tour Road, improve visitor experience and safety, reduce resource damage along the Tour Road and at the visitor center and Reno-Benteen parking areas, and increase parking capacity at the visitor center and Reno-Benteen parking areas.

Poor pavement structure has resulted in increased rutting of the Tour Road due to heavy vehicle loads. The current practice of patching the rutting areas with asphalt is a temporary solution. The existing pavement and structural conditions on the Tour Road detract from the current visitor experience. Recreational vehicle traffic poses potential future safety concerns, as these large vehicles tend to veer off of the roadway in order to avoid oncoming traffic because the roadway is narrow. The existing steep pavement edge makes it difficult for these vehicles to maneuver back on the roadway safely. The current design of the Tour Road and Reno-Benteen parking area results in vehicles frequently traveling off paved surfaces, affecting both natural and cultural resources. With the projected increase in visitor traffic, congestion at the visitor center and Reno-Benteen parking areas is expected to increase, resulting in further deterioration of the visitor experience, and resource degradation at the Reno-Benteen parking area.

#### **ALTERNATIVES**

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##### **SELECTED ACTION**

The Selected Action is Alternative B: Road Widening-24' Width (NPS Preferred Alternative) as described in the environmental assessment / assessment of effect. A complete description of Alternative B is presented in the "Alternatives" section of the environmental assessment / assessment of effect. The Selected Action presents the NPS proposed action and defines the rationale for the action in terms of structural and safety improvements, resource protection and management, visitor experience, and costs.

The Selected Action will rehabilitate, restore, reconstruct and resurface the Tour Road and visitor center and Reno-Benteen parking areas by improving the condition of the pavement and its underlying structure, thereby improving visitor experience and safety, and reducing routine maintenance needs and costs. The

Tour Road will be widened to a 24-foot top width consisting of 11-foot travel lanes and 1-foot shoulders. Visitor experience and safety will be improved because the road will be noticeably wider in some locations and easier to drive. Resource damage will be reduced along the Tour Road because of the addition of paved shoulders. In addition, the visitor center and Reno-Benteen parking lots will be reconstructed to provide increased parking capacity and improved traffic flow through the parking lots, improving visitor experience and safety, and reducing resource damage at the Reno-Benteen parking area.

## **OTHER ALTERNATIVES CONSIDERED**

The no-action alternative, Alternative A in the environmental assessment / assessment of effect would continue to use the current Tour Road alignment and configuration, along with current visitor center and Reno-Benteen parking area configurations. A complete description of Alternative A is presented in the “Alternatives” section of the environmental assessment / assessment of effect. No change would be made to roadway or parking conditions and monument staff would continue to provide limited maintenance to these roads and parking areas. Short-term, minor repair or improvement activities for the Tour Road or visitor center and Reno-Benteen parking areas would be undertaken as part of routine maintenance operations.

Alternative C: Road Widening-22’ Width was also considered in the environmental assessment / assessment of effect. A complete description of Alternative C is presented in the “Alternatives” section of the environmental assessment / assessment of effect. Alternative C would rehabilitate, restore, resurface and reconstruct the Tour Road and visitor center and Reno-Benteen parking areas. In addition, the Tour Road would be widened to have a 22-foot top width consisting of 10-foot travel lanes and 1-foot shoulders. The visitor center and Reno-Benteen parking lots would be reconstructed.

## **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

In accordance with NPS *Director’s Order #12: Conservation Planning, Environmental Impact Analysis, and Decision-making* (January 8, 2001) and the National Environmental Policy Act (NEPA), the National Park Service is required to identify the environmentally preferred alternative in all environmental documents, including environmental assessments / assessment of effects. The environmentally preferred alternative is determined by applying the criteria suggested in NEPA, which is guided by the Council on Environmental Quality. A complete description of the environmentally preferred alternative is presented in the “Alternatives” section of the environmental assessment / assessment of effect.

## **MITIGATION**

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Throughout the planning process for preparation of the environmental assessment / assessment of effect, mitigation measures were identified and have been incorporated into the Selected Action to minimize the adverse effects of this alternative and to reduce impacts below a significant level. All mitigation measures identified for the Rehabilitate Tour Road project are summarized in Table 1. The table also identifies the parties responsible for accomplishing activities associated with the specific mitigation requirements, though Little Bighorn Battlefield National Monument retains the ultimate responsibility for the implementation of mitigation measures listed in Table 1. These measures will be implemented to avoid, minimize and mitigate impacts.

## **WHY THE SELECTED ACTION (PREFERRED ALTERNATIVE) WOULD NOT HAVE A SIGNIFICANT IMPACT ON THE HUMAN ENVIRONMENT**

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Consideration of effects described in the environmental assessment / assessment of effect and a finding that they are not significant is a necessary and critical part of this Finding of No Significant Impact (FONSI) as required by 40 CFR 1508.13. Significance criteria are defined in 40 CFR 1508.27 to consider direct, indirect and cumulative impacts and the context and intensity of impacts. Mitigation measures described in the environmental assessment / assessment of effect and in Table 1, and incorporated into the Selected Action are generally required by laws, regulations or NPS policies and are adopted by this decision.

### **IMPACTS THAT MAY HAVE BOTH BENEFICIAL AND ADVERSE ASPECTS AND WHICH ON BALANCE MAY BE BENEFICIAL, BUT THAT MAY STILL HAVE SIGNIFICANT ADVERSE IMPACTS WHICH REQUIRE ANALYSIS IN AN ENVIRONMENTAL IMPACT STATEMENT**

No major adverse or beneficial impacts were identified that would require analysis in an environmental impact statement.

The Selected Action will have no impacts on cultural landscapes; Indian trust resources; threatened or endangered species; geology; prime and unique farmlands; land use plans and policies; land ownership / right-of-way; and environmental justice.

Adverse negligible short-term impacts from construction-related activities will occur to wildlife; vegetation; soils; air quality; soundscapes; visual resources; and water quality and hydrology under the Selected Action. Short-term impacts to visitor experience and socioeconomic environment from construction-related activities will be adverse minor. Species of concern, wildlife and vegetation impacts under the Selected Action will be adverse negligible long term from the loss of vegetation. There will also be adverse negligible long-term impacts to soils from the loss of soils. Floodplain impacts from flash flooding will be adverse negligible long term. Long-term impacts to soundscapes will be adverse negligible from potential increases in motor noise levels associated with the expanded parking areas. Visual resources will experience adverse negligible to minor long-term impacts from implementation of the Selected Action. Wetlands short- and long-term impacts will be adverse negligible; however, the permanent area of disturbance will be less than the area of temporary disturbance. The Selected Action will have adverse negligible to minor long-term impacts on archeological resources, historic structures and ethnographic resources. Under Section 106, there will be *no adverse effect* to archeological resources, historic structures and ethnographic resources because mitigation measures are identified and the Montana State Historic Preservation Office (SHPO) concurs with those measures. Concurrence with this determination was received from SHPO on June 30, 2005.

Beneficial effects of the Selected Action are as follows: negligible long-term impacts on unique natural areas from restoration of vegetation; negligible short-term impacts on the socioeconomic environment for construction businesses and workers; and minor to moderate long-term impacts on the visitor experience from the roadway and parking area improvements.

### **DEGREE OF EFFECT ON PUBLIC HEALTH OR SAFETY**

Under the Selected Action, the Rehabilitate Tour Road project will be constructed using NPS Park Road Standards for road rehabilitation projects. The wider Tour Road under the Selected Action will provide

an increased shy distance; improving visitor safety because vehicles passing in opposing directions will not need to veer off of the roadway or reduce speed in order to avoid collisions. The increased roadway width and improved shoulder will allow visitors to travel more comfortably and safer through the monument.

Providing Americans with Disabilities Act (ADA)-accessible parking spaces at the visitor center and Reno-Benteen parking areas will facilitate access for visitors with disabilities and improve visitor safety. The Selected Action will result in beneficial site-specific moderate long-term impacts to safety in the park.

**DEGREE OF EFFECT ON UNIQUE CHARACTERISTICS OF THE POTENTIALLY AFFECTED AREA, SUCH AS PROXIMITY TO HISTORIC OR CULTURAL RESOURCES, PARK LANDS, PRIME FARMLANDS, WETLANDS, WILD AND SCENIC RIVERS, OR ECOLOGICALLY CRITICAL AREAS:**

As described in the environmental assessment / assessment of effect, there are no known Indian trust resources; threatened or endangered species; designated critical habitat, ecologically critical areas, and wild and scenic rivers; wilderness areas; and prime and unique farmlands proximate to the project area that will be affected by the proposed project. Therefore, no impacts to these resources are anticipated.

**Cultural Resources.** Please see the narrative under “The Degree to Which the Action May Adversely Affect Historic Properties in or Eligible for Listing in the National Register of Historic Places (NRHP), or Other Significant Scientific, Archeological, or Cultural Resources” for the discussion of archeological resources, historic structures and ethnographic resources.

**Special Concern Species.** Several state-listed species of concern occur within the monument and may nest within and adjacent to the project area, including Swainson’s hawk, burrowing owl, Brewer’s sparrow, Columbian sharp-tailed grouse, grasshopper sparrow, lark bunting, and long-billed curlew. With implementation of NPS recommended mitigation, the short-term impacts on state-listed species of concern from human-related disturbance under the Selected Action will be adverse site-specific negligible. Long-term impacts to state-listed species of concern from habitat disturbance will be adverse site-specific negligible.

**Unique Natural Areas.** The grassland within Little Bighorn Battlefield National Monument has been designated as a pristine Unique Natural Area. With implementation of NPS recommended mitigation, the Selected Action will have a beneficial negligible long-term impact because it will improve the existing conditions of the grasslands by treating invasive species that degrade the pristine nature of the grassland along the roadway.

**Wetlands.** Wetlands are present at the edges of three intermittent tributaries (unnamed stream, Deep Coulee and Medicine Tail Coulee). Under the Selected Action there will be both short- and long-term impacts to wetlands at Deep Coulee and Medicine Tail Coulee from repairing and extending the concrete box culverts under the Tour Road at these wetlands. The two-wetland areas will be subject to adverse site-specific negligible short-term impacts.

The long-term effects to these two wetlands under the Selected Action will be relatively small in terms of the overall wetland area; affecting a limited number of individuals of plant or wildlife species in the wetland area. Long-term impacts to the two wetlands will be adverse site-specific negligible. Mitigation measures including best management practices (BMPs) will be implemented to minimize adverse short- and long-term impacts to these two wetlands.



**DEGREE TO WHICH EFFECTS ON THE QUALITY OF THE HUMAN ENVIRONMENT ARE LIKELY TO BE HIGHLY CONTROVERSIAL**

There are no highly controversial effects identified during preparation of the environmental assessment / assessment of effect, agency consultation or the public review period. No comment letters were received on the public review environmental assessment / assessment of effect.

**DEGREE TO WHICH THE POSSIBLE EFFECTS ON THE QUALITY OF THE HUMAN ENVIRONMENT ARE HIGHLY UNCERTAIN OR INVOLVE UNIQUE OR UNKNOWN RISKS**

As disclosed in the “Environmental Consequences” section of the environmental assessment / assessment of effect, the potential effects of the Selected Action are generally straightforward. Unique risks are not anticipated. Unknown risks are difficult to anticipate; however, detailed research and analysis of the Selected Action and its consequences places unknown risks at a minimal level.

**DEGREE TO WHICH THE ACTION MAY ESTABLISH A PRECEDENT FOR FUTURE ACTIONS WITH SIGNIFICANT EFFECTS OR REPRESENTS A DECISION IN PRINCIPLE ABOUT A FUTURE CONSIDERATION**

The Selected Action neither establishes a NPS precedent for future actions with significant effects nor represents a decision in principle about a future consideration. Future NPS actions will be evaluated through additional, project-specific planning processes that incorporate requirements of NEPA and NPS policies.

**WHETHER THE ACTION IS RELATED TO OTHER ACTIONS WITH INDIVIDUALLY INSIGNIFICANT BUT CUMULATIVELY SIGNIFICANT IMPACTS. SIGNIFICANCE EXISTS IF IT IS REASONABLE TO ANTICIPATE A CUMULATIVELY SIGNIFICANT IMPACT ON THE ENVIRONMENT. SIGNIFICANCE CANNOT BE AVOIDED BY TERMING AN ACTION TEMPORARY OR BY BREAKING IT DOWN INTO SMALLER PARTS:**

Impacts to archeological resources, historic structures, ethnographic resources, and visitor experience and safety were analyzed in the environmental consequences section of the environmental assessment / assessment of effect.

As described in the environmental assessment / assessment of effect, cumulative impacts were determined by combining the impacts of the Selected Action with other past, present and reasonably foreseeable future actions. One past project that could contribute to cumulative impacts, Improvements to Battle Ridge Trails, was identified during scoping. Current and future actions that may have the potential to cumulatively impact resources include Visitor Center Addition, Indian Memorial Project, Highway 212 Reconstruction, and State Rest Area Expansion and I-90/Highway 212 Interchange.

**Archeological Resources.** The past, present and reasonably foreseeable future actions described above, combined with the Selected Action, will have adverse site-specific negligible to minor cumulative impacts on archeological resources. The Selected Action will have adverse site-specific negligible to minor contributions to the cumulative impacts on archeological resources.

**Historic Structures.** The past, present and reasonably foreseeable future actions described above, combined with the Selected Action, will have adverse site-specific negligible cumulative impacts on

historic structures. The Selected Action will have adverse site-specific negligible contributions to the cumulative impacts on historic structures.

**Ethnographic Resources.** The past, present and reasonably foreseeable future actions described above, combined with the Selected Action, will have adverse site-specific negligible to minor cumulative impacts on ethnographic resources. The Selected Action will have adverse site-specific negligible to minor contributions to the cumulative impacts on ethnographic resources.

**Visitor Experience and Safety.** The past, present and reasonably foreseeable future actions described above, combined with the Selected Action, will have adverse minor short-term cumulative impacts on visitor experience and safety. The Selected Action will have a minor effect on the adverse short-term cumulative impacts, and will provide beneficial minor to moderate contributions in the long term. Long-term cumulative impacts will be beneficial minor to moderate on visitor experience and safety.

### **THE DEGREE TO WHICH THE ACTION MAY ADVERSELY AFFECT HISTORIC PROPERTIES IN OR ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES, OR OTHER SIGNIFICANT SCIENTIFIC, ARCHEOLOGICAL, OR CULTURAL RESOURCES**

**Archeological Resources.** One historic archeological site encompassing the two battlefields (Last Stand and Reno-Benteen) and one prehistoric archeological site located on Calhoun Ridge/Lame White Man Charge wayside pullout are within the area of potential effect (APE). Mitigation requires a NPS archeologist be on site during ground disturbing activities at Last Stand Hill and Reno-Benteen parking lot. The existing asphalt will be removed and then the NPS qualified archeologist will conduct a metal detection survey and artifact recovery. The archeologist will assess the artifacts for integrity, significance and historical contribution to the site. If artifacts are located within the APE, impacts will be adverse site-specific negligible to minor (depending on number, type and integrity). If no artifacts are found, there will be no impact to archeological resources. After applying the Advisory Council on Historic Preservation's criteria of adverse effect (36 CFR 800.5), the National Park Service determined that the activities proposed in the Selected Action will have *no adverse effect* on archeological resources. Concurrence with this determination was received from SHPO on June 30, 2005.

**Historic Structures.** Within the project area, there are two historic structures identified on the park's List of Classified Structures (LCS): the white marble headstones (LCS#11522), which mark the approximate location for the burial sites of U.S. military soldiers, and the earthen fortifications at Reno-Benteen Battlefield (LCS #11523). The National Park Service conducted a 100 percent metal detection survey within the APE. The positive results required an additional Ground Penetrating Radar (GPR) survey at LCS #11523 that was conducted in May 2005. The preliminary report states there were no anomalies in the subsurface. Based on these survey results, the Selected Action will have an adverse site-specific negligible effect on LCS #11522 and an adverse site-specific negligible effect on LCS#11523. After applying the Advisory Council on Historic Preservation's criteria of adverse effects (36 CFR 800.5), the National Park Service determined that the activities proposed in the Selected Action will have *no adverse effect* on historic structures LCS#11522 and LCS#11523. Concurrence with this determination was received from SHPO on June 30, 2005.

**Cultural Landscapes.** There are three cultural landscapes within or adjacent to the project area; Last Stand Hill, Reno-Benteen Battlefield and the National Cemetery. At Last Stand Hill and the National Cemetery there will be no construction work outside of the existing road prism or curb; therefore, the cultural landscapes associated with these areas will not be affected by the Selected Action. Under the Selected Action, the cultural landscape associated with the Reno-Benteen Battlefield will not be affected

by the proposed improvements to the Tour Road and Reno-Benteen parking area. After applying the Advisory Council on Historic Preservation's criteria of adverse effects (36 CFR 800.5), the National Park Service determined that the activities proposed in the Selected Action will have *no adverse effect* on cultural landscapes. Concurrence with this determination was received from SHPO on June 30, 2005.

**Ethnographic Resources.** One ethnographic site encompassing the two battlefields (Last Stand and Reno-Benteen) and one ethnographic site located on Calhoun Ridge/Lame White Man Charge wayside pullout are within the APE. Mitigation requires a NPS archeologist be on site during ground disturbing activities at Last Stand Hill and Reno-Benteen parking lot. The existing asphalt will be removed and then the NPS qualified archeologist will conduct a metal detection survey and artifact recovery. The archeologist will assess the artifacts for integrity, significance and historical contribution to the site. If artifacts are located within the APE, impacts will be adverse site-specific negligible to minor (depending on number, type and integrity). If no artifacts are found, there will be no impact to ethnographic resources. After applying the Advisory Council on Historic Preservation's criteria of adverse effects (36 CFR 800.5), the National Park Service determined that the activities proposed in the Selected Action will have *no adverse effect* on ethnographic resources. Concurrence with this determination was received from SHPO on June 30, 2005.

#### **THE DEGREE TO WHICH THE ACTION MAY ADVERSELY AFFECT AN ENDANGERED OR THREATENED SPECIES OR ITS CRITICAL HABITAT**

The Rehabilitate Tour Road project will not affect endangered or threatened species or critical habitat. According to the *Little Bighorn Battlefield National Monument Environmental Assessment Biological Report* prepared for this project, the whooping crane (federally endangered) and bald eagle (federally threatened) are the only federally-listed species known to occur within or near the project area. The proposed project will not impact any incidental use of the Little Bighorn River riparian area by whooping cranes; therefore, there will be no impact to whooping cranes or their habitat.

Bald eagles may fly over the project area, but they are unlikely to forage or remain in the immediate project area due to high disturbance factors within the monument. No suitable bald eagle nesting habitat exists within the project area, and no known bald eagle nest sites exist within 0.5 mile of the project area, based on a bald eagle nest survey conducted by NPS staff in May, 2005. Bald eagle nest surveys will continue until project completion. If a nest or activity area is identified within 0.5 mile of the project area, the monument will contact U.S. Fish and Wildlife Service (USFWS) and limit any activities that could impact bald eagles until a Biological Assessment (BA) pursuant to Section 7 of the ESA is prepared and consultation is complete. Based on current conditions, there will be no impact to bald eagles or their habitat.

#### **WHETHER THE ACTION THREATENS A VIOLATION OF FEDERAL, STATE, OR LOCAL ENVIRONMENTAL PROTECTION LAW**

The selected action violates no federal, state or local environmental protection laws.

## **IMPAIRMENT OF PARK RESOURCES OR VALUES**

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In addition to determining the environmental consequences of the preferred and other alternatives, NPS *Management Policies 2001* (December 27, 2000) requires analysis of potential effects to determine whether actions would impair park resources. Policies clarifying terms pertaining to “impairment,” as well as a prohibition on impairment and what constitutes impairment, are found in *Management Policies 2001* (Sections 1.4.2 through 1.4.7).

In addition to reviewing the list of significance criteria, the Little Bighorn Battlefield National Monument Superintendent determined that implementation of the Selected Action will not constitute an impairment of park resources or values. This conclusion is based on a thorough analysis of the impacts described in the environmental assessment / assessment of effect, the focus and substance of agency and public comments received, and the professional judgment of the decision maker in accordance with NPS *Management Policies 2001*. As described in the environmental assessment / assessment of effect, implementation of the Selected Action will not result in major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of Little Bighorn Battlefield National Monument, (2) key to the natural or cultural integrity of the Monument or to opportunities for enjoyment of the Monument, or (3) identified as a goal in the *Final General Management Plan and Development Concept Plans* or other relevant NPS planning documents.

## **PUBLIC INVOLVEMENT**

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NPS staff met with representatives of both the Custer Battlefield Historical and Museum Association (CBHMA) and Friends of the Little Bighorn Battlefield on June 26, 2004 to discuss issues and concerns. Friends of the Little Bighorn Battlefield expressed concerns about potential impacts to resources, particularly the viewsheds and cultural landscape (viewscape) between the two battlefields and other various locations, including Weir Point. The Crow Agency was contacted about the proposed action and attended a meeting with monument staff on July 26, 2004. The meeting addressed tribal concerns and the tribe’s level of involvement.

Little Bighorn Battlefield National Monument maintains a website with a link to the website of a park partner, Friends of the Little Bighorn Battlefield. The Superintendent provides periodic updates for the Friends of the Little Bighorn Battlefield.

No comment letters were received on the public review environmental assessment / assessment of effect.

The environmental assessment / assessment of effect will not be reprinted. This Finding Of No Significant Impact constitutes the National Park Service’s Selected Action.

## **CONCLUSION**

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The Selected Action does not constitute an action that normally requires preparation of an environmental impact statement (EIS). The Selected Action will not have a significant effect on the human environment. Negative environmental impacts that could occur are negligible to minor in intensity. There are no significant impacts on public health, public safety, threatened or endangered species, historic properties either listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks,

significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law.

Based on the foregoing, it has been determined that an EIS is not required for this project and will not be prepared.

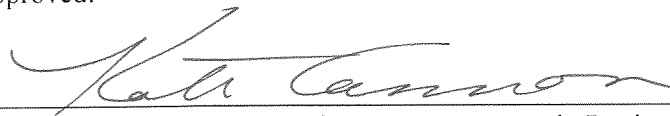
Recommended:


  
\_\_\_\_\_  
Darrell Cook, Superintendent

  
\_\_\_\_\_  
Date

Little Bighorn Battlefield National Monument

Approved:

  
\_\_\_\_\_  
for Michael D. Snyder, Acting Director, Intermountain Region

  
\_\_\_\_\_  
Date

National Park Service, Intermountain Region

Table 1. Mitigation Matrix

#	Mitigation Measure	Responsibility	Timing
Construction Measures			
1	Preconstruction briefings will be required to educate construction crews on the measures required to protect natural and cultural resources.	Monument	Preconstruction
2	Before construction, the construction limits will be surveyed and staked and will be marked with construction fencing, tape, flagging, snow fencing, or some similar material, as necessary to ensure that construction activities do not affect resources outside the construction limits. All protection measures will be clearly stated in the construction specifications, and workers will be instructed to avoid conducting activities beyond the construction limits. This does not preclude installation of necessary temporary structures outside the construction limits, such as erosion control fencing. The contractor will be responsible for ensuring that all work will stay inside the construction limits.	FHWA	Preconstruction During Construction
3	The Federal Highway Administration's project engineer will ensure that the project remains confined to the parameters established in the compliance documents and that mitigation measures are properly implemented to ensure that construction activities do not affect resources outside the construction limits.	FHWA	Preconstruction During Construction
4	Staging for construction material and equipment will occur within the roadway for active work areas or at designated pullouts to ensure that construction staging will not affect resources or visitor experience and safety. Construction-related offices or laboratories, and batch plants for mixing asphalt and concrete will be located outside the monument to protect resources and visitor experience and safety.	FHWA Monument	Preconstruction
5	All construction materials, beyond those generated from the construction activities such as salvaged fill and topsoil (beyond that from other approved monument projects) will be provided by the contractor from sources outside the monument in order to minimize disturbance of monument resources.	FHWA	During Construction
6	Pavement removed from the existing roadway and parking areas will be milled and stockpiled at previously disturbed areas to protect resources.	FHWA	During Construction
7	All demolition debris, including visible concrete and metal pieces, will be immediately hauled from the monument to an appropriate disposal location to protect resources and ensure visitor safety. All tools, equipment, barricades, signs, surplus materials, and rubbish will be removed from the project work limits upon project completion. Any asphalt surfaces damaged due to work on the project will be repaired to original condition to maintain monument operations.	FHWA	During Construction
8	Contingency plans for safely dealing with hazardous material spills will be submitted prior to project initiation. Storage of hazardous materials and fueling of all machinery will only be conducted in monument approved equipment staging areas in order to protect resources and visitor safety. Any spills of hazardous materials, fuels, etc. will be immediately reported to the monument.	FHWA	Preconstruction During Construction
9	The contractor will be required to maintain strict garbage control so scavengers (e.g., corvids) will not be attracted to the project area. No food scraps will be discarded or fed to wildlife.	FHWA	During Construction

#	Mitigation Measure	Responsibility	Timing
<b>Cultural Resources</b>			
10	Cut and fill slopes will be constructed from the edge of the pavement structure to the bottom of roadside ditches or where the slope catches the natural terrain to minimize disturbance of resources.	FHWA	Preconstruction
11	Workers will be informed of the penalties for illegally collecting artifacts or intentionally damaging archeological or historic property. Workers will be informed of the correct notification procedures in the event that previously unknown resources are uncovered during construction. In the <b>Reno-Benteen and Custer Battlefields</b> , a NPS qualified archeologist will monitor all ground-disturbing activities for unanticipated discovery of archeological resources. The existing asphalt will be removed and then a NPS qualified archeologist will conduct a metal survey and artifact recovery. Only after the archeologist has completed the survey and given permission to the construction engineer will work resume.	Monument FHWA	Preconstruction During Construction
12	If cultural material is uncovered during ground disturbing activities, work in the immediate area will be stopped, the site secured, and Little Bighorn Battlefield National Monument will consult according to 36 CFR 800.13. Work will resume <b>as quickly as possible</b> after the park has consulted with SHPO and other appropriate parties, in accordance with 36 CFR 800.13	Monument FHWA	During Construction
13	If human remains are uncovered during construction, the monument superintendent will be contacted immediately and work in the vicinity will be stopped. In compliance with the Native American Grave Protection and Repatriation Act of 1990 (NAGPRA), the National Park Service will also notify and consult representatives of American Indian tribes likely to be culturally affiliated for the proper treatment of human remains, funerary, and sacred objects should these be discovered during the project. Work can resume only after an appropriate mitigation strategy is developed in consultation with the Montana State Historic Preservation Office and after archeological clearances are obtained.	FHWA Monument	During Construction
<b>Threatened, Endangered, or Special Concern Species</b>			
14	A bald eagle nest survey is to be conducted prior to construction. If nests are found within 0.5 mile of the project area, work will stop until the monument initiates consultation with USFWS and comes to an agreement on how to proceed.	Monument	Preconstruction
15	Nest surveys for state-listed avian species of concern will be conducted unless vegetation is removed prior to spring migration and establishment of breeding territories. If nests are located within 10 meters of the project area during nesting season, seasonal restrictions will be implemented to minimize / mitigate impacts to nests or individuals. Seed collection for revegetation efforts will be done by hand to avoid destroying ground nesting bird species. Mitigation can include removal of nesting habitat from areas of project disturbance prior to the nesting seasons (i.e. mowing, clearing). If nests are found during bird nest surveys, a NPS biologist will work in cooperation with the FHWA to provide protection such as moving or delaying construction to allow fledging of birds from nests. Prior to construction activities at Weir Point, this area will be inspected and evaluated by a NPS biologist to determine potential impacts to horned lizard. If potential conflicts with horned lizards in sensitive life stages are likely at this location, the NPS biologist will work in cooperation with the construction contractor to reduce impacts as much as possible. All construction-related activities, including revegetation, at the cut slope bank will be avoided, if practicable, to minimize impacting the species and its habitat. If the cut slope bank cannot be avoided, the area of impact will be minimized to the greatest extent feasible in order to preserve the remainder of the habitat in an undisturbed state. If revegetation is required, revegetation activities will be conducted in spring or fall during the wet season to minimize impacts during breeding season.	Monument DSC	Preconstruction During Construction Post Construction



#	Mitigation Measure	Responsibility	Timing
Unique Natural Area			
16	To preserve and protect the genetic integrity of the grassland, which has been designated a pristine Unique Natural Area, the seed and plants used to revegetate will be indigenous to the monument. This will be accomplished by hand collection of seed of selected species within the monument boundaries. The collected seed will be propagated and increased to a sufficient quantity by a Natural Resources Conservation Service (NRCS) Plant Materials Center (PMC), or a NPS approved facility, and returned to the monument for establishment after completion of construction. Mitigation for exotic and invasive species is presented under the Vegetation section in this mitigation matrix.	Monument	Post Construction
Wildlife			
17	Seed collection for revegetation efforts will be done by hand to avoid destroying ground nesting bird species.	Monument	Post Construction
Vegetation			
18	Cut and fill slopes will be constructed from the edge of the pavement structure to the bottom of roadside ditches or where the slope catches the natural terrain to minimize disturbance of vegetation.	FHWA	Preconstruction
19	Ground surface treatment will include grading to designed cut and fill slopes, as well as roughing/scarification and mulching to promote natural seeding.	FHWA	During Construction
20	Disturbed areas, including areas adjacent to the Tour Road, visitor center and Reno-Benteen parking areas, will be allowed to return to natural conditions through a revegetation plan. Seed and plants used to revegetate the areas disturbed by the proposed road construction will be indigenous to the monument. This will be accomplished by hand collection of seed of selected species within the monument boundaries. The collected seed will be propagated and increased to a sufficient quantity by a Natural Resources Conservation Service (NRCS) Plant Materials Center (PMC), or a NPS approved facility, and returned to the monument for establishment after completion of construction.	Monument	Post Construction
21	In an effort to avoid introduction of non-native plant species, no imported topsoil or hay bales will be used during revegetation. To prevent the introduction and minimize the spread of non-native vegetation and noxious weeds, an intense preconstruction control program, consisting of timely herbicide applications, will be initiated in the fall of 2005 and continue through 2006. For two years post construction, the revegetated areas will be monitored. Re-occurring invasive species and noxious weeds will be eradicated by herbicide treatments and/or manual pulling. In addition, the following measures will be implemented during construction: <ul style="list-style-type: none"><li>• Minimize soil disturbance.</li><li>• All vehicles and equipment will be inspected and cleaned as necessary prior to their entry into the project area.</li><li>• Imported rock, sand, aggregate, gravel, soil, or other natural material must be certified weed free prior to hauling into the project area.</li><li>• Monitor disturbed areas for up to three years following construction to identify growth of non-native species or noxious weeds. Treatment of non-native vegetation will be completed in accordance with NPS Director's Order #77: <i>Natural Resource Management Reference Manual</i>.</li></ul>	FHWA Monument	Preconstruction During Construction Post Construction
Geology and Soils			
22	Cut and fill slopes will be constructed from the edge of the pavement structure to the bottom of roadside ditches or where the slope catches the natural terrain to minimize disturbance of soils.	FHWA	Preconstruction

#	Mitigation Measure	Responsibility	Timing
23	Erosion and sediment control will be required. Disturbed sites within the construction area, including areas adjacent to the Tour Road and visitor center and Reno-Bentzen parking areas, will be returned to natural conditions, and the site topography will be returned to its preconstruction contours as much as possible to minimize disturbance of soils. Areas disturbed by construction will be revegetated to facilitate soil stability, help reduce runoff, channelization, and erosion, and to help the soil restore itself to natural conditions.	FHWA	During Construction
24	Topsoil will be removed from areas of construction and stored for later reclamation use. The topsoil will be respread in as near the original location as possible and supplemented with scarification, mulching, seeding, and/or planting with species native to the immediate area.	FHWA	During Construction
25	During periods of heavy rainfall the project engineer will issue a temporary stop order for all soil disturbing activities. During these work stoppage periods, project personnel will continue to check the silt fences and check dams, maintain the silt fences in effective condition, and remove accumulated sediment, as necessary, to ensure that soils are stabilized.	FHWA	During Construction
<b>Air Quality</b>			
26	Fugitive dust will be controlled by periodic watering as necessary. Construction equipment will not be allowed to idle unnecessarily for extended periods of time, thereby reducing equipment-related emissions.	FHWA	During Construction
<b>Water Quality</b>			
27	Best management practices for drainage and sediment control will be implemented to prevent or reduce nonpoint source pollution and minimize soil loss and sedimentation in drainage areas and water resources. Use of best management practices in the project area for drainage area protection will include the following actions, depending on site-specific requirements: <ul style="list-style-type: none"> <li>• Keeping disturbed areas as small as practical to minimize exposed soil and the potential for erosion.</li> <li>• Locating waste and excess excavated materials outside of drainages to avoid sedimentation.</li> <li>• Installing silt fences, temporary earthen berms, temporary water bars, sediment traps, stone check dams, or other equivalent measures (including installing erosion-control measures around the perimeter of stockpiled fill material) prior to construction.</li> <li>• Marking wetland limits with construction tape or snow fencing to prevent intrusion into wetlands.</li> <li>• Using water for construction and dust control from sources outside the monument.</li> <li>• Conducting regular site inspections during the construction period to ensure that erosion-control measures were properly installed and are functioning effectively.</li> <li>• Storing, using, and disposing of chemicals, fuels, and other toxic materials in a proper manner.</li> </ul>	FHWA Monument	Preconstruction During Construction
<b>Wetlands</b>			
28	Mitigation measures including best management practices will be implemented to minimize short-term impacts to wetlands. These can include active restoration (revegetation), excavation to original wetland soil, invasive species control, and erosion and sediment control. Work will be undertaken on the Deep Coulee and Medicine Tail Coulee culverts when the water is not flowing in the coulees.	FHWA	During Construction
<b>Visitor Experience</b>			

#	Mitigation Measure	Responsibility	Timing
29	Between November 1 and April 1 the entire Tour Road can be closed for up to four weeks due to construction; however, visitors can access the visitor center parking area and walk to the Indian Memorial and Last Stand Hill. In addition, between October 1 and April 30, the Tour Road can be closed during construction operations from Calhoun Loop to the terminus of the road at Reno-Bentzen. This same segment beyond Calhoun Loop can be closed Monday through Thursday between May 1 and Memorial Day weekend and Labor Day Weekend and September 30.	FHWA Monument	During Construction
30	A traffic and bicyclist plan will be required from the contractor to ensure that visitors are safely and efficiently routed around construction in the project area. This plan will include means for communicating construction and closure schedules to the public; adequate barriers and/or flaggers to keep visitors clear of active construction areas and clear signage to direct visitors to monument destinations open during construction. During total road closures, press releases and notices on the monument website will be made and signage will notify drivers of the intended closure dates and times.	FHWA Monument	Preconstruction During Construction
31	Access will be provided at all times for emergency vehicles to ensure visitor safety is not affected.	FHWA	During Construction